

INCH-POUND

MIL-S-24235/13C(SH)

28 December 1992

SUPERSEDING

MIL-S-24235/13B(SH)

21 August 1989

MILITARY SPECIFICATION SHEET

STUFFING TUBES, METAL, AND PACKING ASSEMBLIES FOR
ELECTRIC CABLES, FOR CAST ENCLOSURES

This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-S-24235.

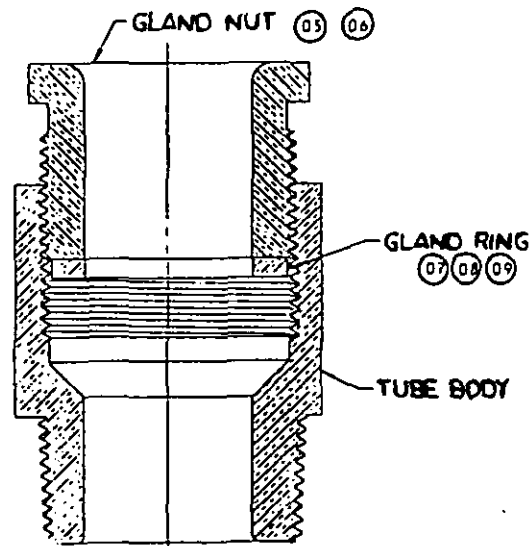


FIGURE 1. Stuffing tube assembly. (01)

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances shall be as follows:
 - Decimals - plus or minus 0.005 inch.
 - Fractions - plus or minus 1/64 inch.
 - Angular dimensions - plus or minus 30 minutes.

AMSC N/A

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FSC 5975

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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TABLE I. Tube assembly and component part or identifying numbers (brass).

Assembly part or identifying number	Part or identifying numbers of components			Size of tube
	Tube body 1 required	Gland nut 1 required	Gland ring 1 required	
M24235/13-001	M24235/13-031	M24235/13-061	M24235/9-091	A
M24235/13-002	M24235/13-032	M24235/13-062	M24235/9-092	B
M24235/13-003	M24235/13-033	M24235/13-063	M24235/9-093	C
M24235/13-004	M24235/13-034	M24235/13-064	M24235/9-094	D
M24235/13-005	M24235/13-035	M24235/13-065	M24235/9-095	E
M24235/13-006	M24235/13-036	M24235/13-065	M24235/9-095	EE
M24235/13-007	M24235/13-037	M24235/13-066	M24235/9-096	F
M24235/13-008	M24235/13-038	M24235/13-067	M24235/9-097	G
M24235/13-009	M24235/13-039	M24235/13-068	M24235/9-098	J
M24235/13-010	M24235/13-040	M24235/13-069	M24235/9-099	K
M24235/13-011	M24235/13-041	M24235/13-070	M24235/9-100	L
M24235/13-012	M24235/13-042	M24235/13-071	M24235/9-101	M
M24235/13-013	M24235/13-043	M24235/13-072	M24235/9-102	N
M24235/13-014	M24235/13-044	M24235/13-073	M24235/9-103	P
M24235/13-015	M24235/13-045	M24235/13-074	M24235/9-104	R
M24235/13-016	M24235/13-046	M24235/13-075	M24235/9-105	S
M24235/13-017	M24235/13-047	M24235/13-076	M24235/9-106	T
M24235/13-018	M24235/13-048	M24235/13-077	M24235/9-107	V
M24235/13-019	M24235/13-049	M24235/13-078	M24235/9-108	W
M24235/13-020	M24235/13-050	M24235/13-079	M24235/9-109	X
M24235/13-021	M24235/13-051	M24235/13-080	M24235/9-110	Y
M24235/13-022	M24235/13-052	M24235/13-081	M24235/9-111	Z

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TABLE II. Tube assembly and component part or identifying numbers (aluminum).

Assembly part or identifying number	Part or identifying numbers of components			Size of tube
	Tube body 1 required	Gland nut 1 required	Gland ring 1 required	
M24235/13-121	M24235/13-181	M24235/13-211	M24235/13-241	A
M24235/13-122	M24235/13-182	M24235/13-212	M24235/13-242	B
M24235/13-123	M24235/13-183	M24235/13-213	M24235/13-243	C
M24235/13-124	M24235/13-184	M24235/13-214	M24235/13-244	D
M24235/13-125	M24235/13-185	M24235/13-215	M24235/13-245	E
M24235/13-126	M24235/13-186	M24235/13-215	M24235/13-245	EE
M24235/13-127	M24235/13-187	M24235/13-216	M24235/13-246	F
M24235/13-128	M24235/13-188	M24235/13-217	M24235/13-247	G
M24235/13-129	M24235/13-189	M24235/13-218	M24235/13-248	J
M24235/13-130	M24235/13-190	M24235/13-219	M24235/13-249	K
M24235/13-131	M24235/13-191	M24235/13-220	M24235/13-250	L
M24235/13-132	M24235/13-192	M24235/13-221	M24235/13-251	M
M24235/13-133	M24235/13-193	M24235/13-222	M24235/13-252	N
M24235/13-134	M24235/13-194	M24235/13-223	M24235/13-253	P
M24235/13-135	M24235/13-195	M24235/13-224	M24235/13-254	R
M24235/13-136	M24235/13-196	M24235/13-225	M24235/13-255	S
M24235/13-137	M24235/13-197	M24235/13-226	M24235/13-256	T
M24235/13-138	M24235/13-198	M24235/13-227	M24235/13-257	V
M24235/13-139	M24235/13-199	M24235/13-228	M24235/13-258	W
M24235/13-140	M24235/13-200	M24235/13-229	M24235/13-259	X
M24235/13-141	M24235/13-201	M24235/13-230	M24235/13-260	Y
M24235/13-142	M24235/13-202	M24235/13-231	M24235/13-261	Z

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TABLE III. Tube assembly and component part or identifying numbers (steel).

Assembly part or identifying number	Part or identifying numbers of components			Size of tube
	Tube body 1 required	Gland nut 1 required	Gland ring 1 required	
M24235/13-151	M24235/13-321	M24235/13-061	M24235/9-181	A
M24235/13-152	M24235/13-322	M24235/13-062	M24235/9-182	B
M24235/13-153	M24235/13-323	M24235/13-063	M24235/9-183	C
M24235/13-154	M24235/13-324	M24235/13-064	M24235/9-184	D
M24235/13-155	M24235/13-325	M24235/13-065	M24235/9-185	E
M24235/13-156	M24235/13-326	M24235/13-065	M24235/9-185	EE
M24235/13-157	M24235/13-327	M24235/13-066	M24235/9-186	F
M24235/13-158	M24235/13-328	M24235/13-067	M24235/9-187	G
M24235/13-159	M24235/13-329	M24235/13-068	M24235/9-188	J
M24235/13-160	M24235/13-330	M24235/13-069	M24235/9-189	K
M24235/13-161	M24235/13-331	M24235/13-070	M24235/9-190	L
M24235/13-162	M24235/13-332	M24235/13-071	M24235/9-191	M
M24235/13-163	M24235/13-333	M24235/13-072	M24235/9-192	N
M24235/13-164	M24235/13-334	M24235/13-073	M24235/9-193	P
M24235/13-165	M24235/13-335	M24235/13-074	M24235/9-194	R
M24235/13-166	M24235/13-336	M24235/13-075	M24235/9-195	S
M24235/13-167	M24235/13-337	M24235/13-076	M24235/9-196	T
M24235/13-168	M24235/13-338	M24235/13-077	M24235/9-197	V
M24235/13-169	M24235/13-339	M24235/13-078	M24235/9-198	W
M24235/13-170	M24235/13-340	M24235/13-079	M24235/9-199	X
M24235/13-171	M24235/13-341	M24235/13-080	M24235/9-200	Y
M24235/13-172	M24235/13-342	M24235/13-081	M24235/9-201	Z

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TABLE IV. Tube body dimensions.

Size	Part or identifying number brass	Part or identifying number aluminum	Part or identifying number steel	NPT Threads	A DIA	B Threads	C DIA	D DIA	E L/	F	G
A	M24235/13-031	M24235/13-181	M24235/13-221	3/8-18	0.406	0.875	0.767	1-1/8	7/8	1-3/8	1/2
B	M24235/13-032	M24235/13-182	M24235/13-222	1/2-14	.515	1.000	.892	1-1/4	7/8	1-3/8	5/8
C	M24235/13-033	M24235/13-183	M24235/13-223	3/4-14	.640	1.125	1.017	1-3/8	7/8	1-3/8	5/8
D	M24235/13-034	M24235/13-184	M24235/13-224	3/4-14	.750	1.250	1.142	1-1/2	7/8	1-3/8	5/8
E	M24235/13-035	M24235/13-185	M24235/13-225	3/4-14	.812	1.250	1.142	1-1/2	7/8	1-3/8	5/8
EE	M24235/13-036	M24235/13-186	M24235/13-226	1-11-1/2	.812	1.250	1.142	1-1/2	7/8	1-3/8	5/8
F	M24235/13-037	M24235/13-187	M24235/13-227	1-11-1/2	.843	1.312	1.204	1-9/16	7/8	1-3/8	3/4
G	M24235/13-038	M24235/13-188	M24235/13-228	1-11-1/2	.953	1.500	1.392	1-13/16	1	1-3/8	3/4
J	M24235/13-039	M24235/13-189	M24235/13-229	1-1/4-11-1/2	1.062	1.625	1.517	1-15/16	1	1-3/8	13/16
K	M24235/13-040	M24235/13-190	M24235/13-230	1-1/4-11-1/2	1.171	1.750	1.642	2-1/16	1	1-11/16	13/16
L	M24235/13-041	M24235/13-191	M24235/13-231	1-1/4-11-1/2	1.265	1.812	1.704	2-1/8	1	1-11/16	13/16
M	M24235/13-042	M24235/13-192	M24235/13-232	1-1/2-11-1/2	1.406	2.000	1.892	2-3/8	1	1-11/16	13/16
N	M24235/13-043	M24235/13-193	M24235/13-233	1-1/2-11-1/2	1.515	2.062	1.954	2-7/16	1	1-11/16	13/16
P	M24235/13-044	M24235/13-194	M24235/13-234	2-11-1/2	1.625	2.188	2.079	2-9/16	1	1-11/16	13/16
R	M24235/13-045	M24235/13-195	M24235/13-235	2-11-1/2	1.750	2.312	2.204	2-11/16	1	1-11/16	13/16
S	M24235/13-046	M24235/13-196	M24235/13-236	2-11-1/2	1.875	2.688	2.579	3-1/16	1-3/8	2-1/2	13/16
T	M24235/13-047	M24235/13-197	M24235/13-237	2-1/2-8	2.062	2.875	2.767	3-1/4	1-3/8	2-1/2	1-1/16
V	M24235/13-048	M24235/13-198	M24235/13-238	2-1/2-8	2.187	3.000	2.892	3-3/8	1-3/8	2-1/2	1-1/16
W	M24235/13-049	M24235/13-199	M24235/13-239	3-8	2.312	3.125	3.017	3-9/16	1-3/8	2-1/2	1-3/16
X	M24235/13-050	M24235/13-200	M24235/13-240	3-8	2.500	3.250	3.142	3-3/4	1-3/8	2-1/2	1-3/16
Y	M24235/13-051	M24235/13-201	M24235/13-241	3-8	2.609	3.375	3.267	3-7/8	1-3/8	2-1/2	1-3/16
Z	M24235/13-052	M24235/13-202	M24235/13-242	3-1/2-8	2.781	3.562	3.454	4-1/16	1-3/8	2-1/2	1-3/16

L/ Threads shall be minus 0, plus 4 threads.

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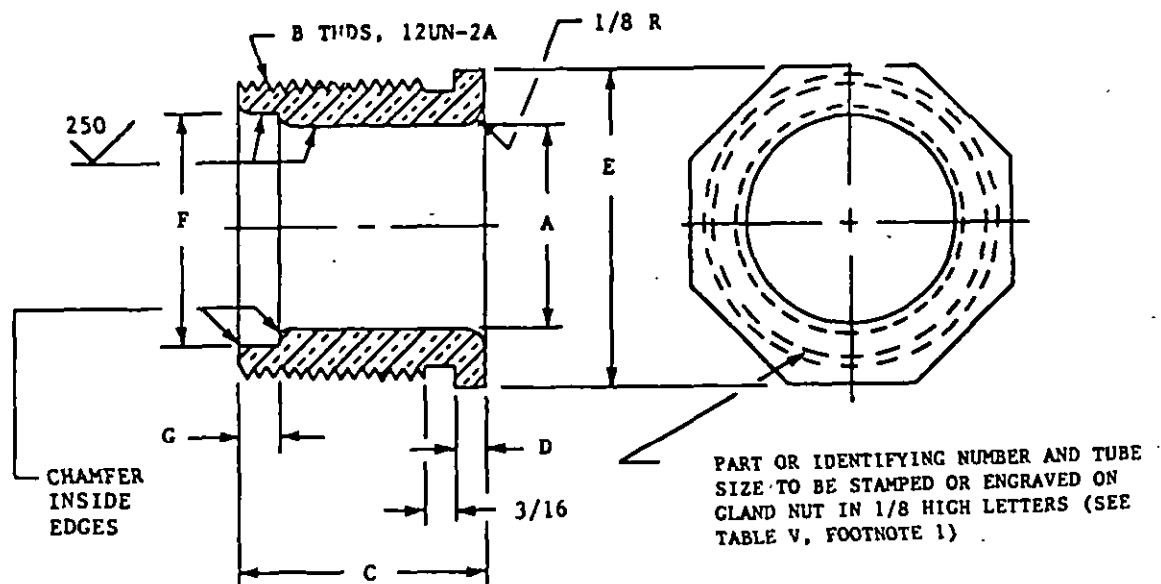


FIGURE 3. Gland nut configuration.

(04) (05)

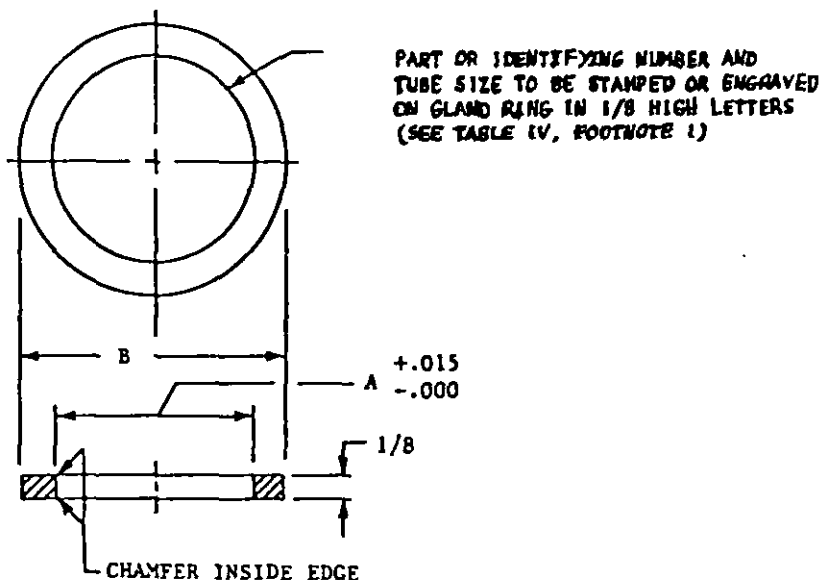
TABLE V. Gland nut dimensions.

Part or identifying number aluminum	Size	A DIA	B THDS	C	D	E	F DIA	G
M24235/13-211	A	0.406	0.875	1-1/8	1/4	1-1/32	9/16	1/4
M24235/13-212	B	.515	1.000	1-1/8	1/4	1-1/8	11/16	1/4
M24235/13-213	C	.640	1.125	1-1/8	1/4	1-1/4	13/16	1/4
M24235/13-214	D	.750	1.250	1-1/8	1/4	1-3/8	15/16	1/4
M24235/13-215	E, EE <u>1/</u>	.812	1.250	1-1/8	1/4	1-3/8	15/16	1/4
M24235/13-216	F	.843	1.312	1-1/8	1/4	1-7/16	1	1/4
M24235/13-217	G	.953	1.500	1-1/4	1/4	1-21/32	1-3/16	1/4
M24235/13-218	J	1.062	1.625	1-1/4	1/4	1-25/32	1-1/4	1/4
M24235/13-219	K	1.171	1.750	1-1/4	1/4	1-7/8	1-3/8	1/4
M24235/13-220	L	1.265	1.812	1-1/4	1/4	1-15/16	1-7/16	1/4
M24235/13-221	M	1.406	2.000	1-1/4	1/4	2-3/16	1-5/8	1/4
M24235/13-222	N	1.515	2.062	1-5/16	5/16	2-1/4	1-11/16	1/4
M24235/13-223	P	1.625	2.188	1-5/16	5/16	2-11/32	1-13/16	1/4
M24235/13-224	R	1.750	2.312	1-5/16	5/16	2-15/32	1-15/16	1/4
M24235/13-225	S	1.875	2.688	1-11/16	5/16	2-13/16	2-5/32	3/8
M24235/13-226	T	2.062	2.875	1-3/4	3/8	2-31/32	2-5/16	3/8
M24235/13-227	V	2.187	3.000	1-3/4	3/8	3-3/32	2-7/16	3/8
M24235/13-228	W	2.312	3.125	1-3/4	3/8	3-9/32	2-9/16	3/8
M24235/13-229	X	2.500	3.250	1-3/4	3/8	3-7/16	2-11/16	3/8
M24235/13-230	Y	2.609	3.375	1-3/4	3/8	3-9/16	2-13/16	3/8
M24235/13-231	Z	2.781	3.562	1-3/4	3/8	3-3/4	3-5/32	3/8

1/ Part numbers M24235/9-065 and /13-215 are used on both tube sizes E and EE. Mark accordingly.

NOTE: The gland nut may be manufactured with equivalent "A" and "F" dimension.

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FIGURE 4. Gland ring configuration.

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TABLE VI. Gland ring dimensions.

Part or identifying number aluminum	A DIA	B DIA	Size
M24235/13-241	0.406	3/4	A
M24235/13-242	.515	7/8	B
M24235/13-243	.640	1	C
M24235/13-244	.750	1-1/8	D
M24235/13-245	.812	1-1/8	E, EE <u>1/</u>
M24235/13-246	.843	1-3/16	F
M24235/13-247	.953	1-3/8	G
M24235/13-248	1.062	1-1/2	J
M24235/13-249	1.171	1-5/8	K
M24235/13-250	1.265	1-11/16	L
M24235/13-251	1.406	1-7/8	M
M24235/13-252	1.515	1-15/16	N
M24235/13-253	1.625	2-1/16	P
M24235/13-254	1.750	2-3/16	R
M24235/13-255	1.875	2-9/16	S
M24235/13-256	2.062	2-3/4	T
M24235/13-257	2.187	2-7/8	V
M24235/13-258	2.313	3	W
M24235/13-259	2.500	3-1/8	X
M24235/13-260	2.609	3-1/4	Y
M24235/13-261	2.781	3-7/16	Z

1/ Part numbers M24235/9-095, /9-185, and /13-245 are used on both tube sizes E and EE. Mark accordingly.

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REQUIREMENTS:

1. Material: When the components are manufactured from aluminum or its alloys threads shall be coated with an antiseize compound of petrolatu and zinc dust of good commercial grade.
2. Packing: Cable packing shall be in accordance with DOD-STD-2003, section 3.
3. Intended use: The stuffing tubes are for special applications and replacemen purposes only and are not standard stock items.

TABLE VII. Parts list.

Item no.	Description 1/	Qty 2/ 3/			Material and specification	Remarks
		BRS	AL	STL		
01	Stuffing tube assemblies	-	--	-	--	See figure 1 and tables I, II and III
02	Tube body	1	--	-	Brass, coml	See figure 2 and table I
03	Tube body	-	1	-	Al alloy, QQ-A-591	See figure 2 and table II
04	Tube body	-	--	1	Steel, ASTM A 108	See figure 2 and table III
05	Gland nut	1	--	1	Brass, coml	See tables I, III and V
06	Gland nut	-	1	-	Al alloy, 356T6, QQ-A-601, or 6061T-6, ASTM B 211	See tables II and V
07	Gland ring	1	--	-	Brass, coml	See tables I and VI
08	Gland ring	-	1	-	Al alloy 6061, QQ-A-250/11	See tables II and VI
09	Gland ring	-	--	1	Steel, ASTM A 569 zinc plated ^{4/}	See tables III and VI

See footnotes at top of next page.

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- 1/ See applicable figure and table listed in "Remarks" column for part numbers and dimensions.
- 2/ Quantity is for one complete assembly of each size.
- 3/ Unless otherwise specified in the contract or order, the material shall be brass (see MIL-S-24235).
- 4/ Zinc plating shall be as specified in ASTM B 633.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Preparing activity:
Navy - SH
(Project 5975-N078-13)